

ACTIVE DIGITAL HOLOGRAM DISPLAY

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ABSTRACT OF THE DISCLOSURE

[54] Certain types of holographic recording materials can be used to updateably record holographic stereograms formed when fringe patterns are generated through interference of an object laser beam containing image information with a reference laser beam. In this manner, calculation of fringe patterns is avoided, and instead perspective information is computed for a scene or object to be displayed, the information is downloaded to display hardware such as a spatial light modulator, and fringe patterns are subsequently generated through interference of an object laser beam containing this information with a reference laser beam in the classic hologram recording scheme. Previously recorded holographic stereograms or component hogels are updated by erasing the stereograms or component hogels and recording updated stereograms or component hogels, or by recording updated stereograms or component hogels in a separate portion of the holographic recording material.